

CLAIMS

1. A heat resistant product comprising a ceramic binder and vermiculite granules, wherein between 35% and 95% of the dry weight of the product is vermiculite having a particle size such that more than 60% of the vermiculite does not pass through a 1mm sieve.
2. A product according to claim 1, wherein 50%-95% of the dry weight of the product is vermiculite having a particle size such that more than 60% of the vermiculite does not pass through a 1mm sieve.
3. A product according to claim 1 ~~or claim 2~~, wherein the product is substantially rigid.
4. A product according to <sup>claim 1</sup> ~~any of the preceding claims~~, wherein the binder comprises the adhesive part of a two part binder.
5. A product according to <sup>claim 1</sup> ~~any of claims 1 to 3~~, wherein the binder comprises the adhesive part of a two part binder, mixed with powdered vermiculite.
6. A product according to <sup>claim 1</sup> ~~any of the preceding claims~~, further comprising glass fibre or other fibrous material reinforcement.
7. A product according to <sup>claim 1</sup> ~~any of the preceding claims~~, wherein the vermiculite granules have a maximum dimension up to 15mm.
8. A product according to <sup>claim 1</sup> ~~any preceding claim~~, which comprises voids which include trapped air.
9. A product according to <sup>claim 1</sup> ~~any of the preceding claims~~, wherein the product is sandwiched between load supporting sheets adhered to the product.
10. A product according to <sup>claim 1</sup> ~~any of the preceding claims~~ adhered onto the surface of an article.
11. A product according to <sup>claim 1</sup> ~~any of claims 1 to 8~~ moulded onto the surface of an article.
12. A product according to <sup>claim 1</sup> ~~any of claims 1 to 8~~ sprayed onto the surface of the article.

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13. A product according to ~~claim 11 or claim 12~~, wherein the article comprises a honeycomb structure.

14. A product according to claim 13, further comprising a phenolic glass laminate sandwiched between the honeycomb structure and the product.

15. A product according to <sup>claim 1</sup> ~~any of the preceding claims~~, wherein the vermiculite has a particle size such that more than 80% of the vermiculite does not pass through a 2mm sieve.

16. A fire wall comprising a heat resistant product according to <sup>claim 1</sup> ~~any of the preceding claims~~.

17. A method of manufacturing a heat resistant product, the method comprising mixing vermiculite granules with a ceramic binder; and drying the mixture, wherein between 35% and 95% of the dry weight of the product is vermiculite having a particle size such that more than 60% of the vermiculite does not pass through a 1mm sieve.

18. A method according to claim 17, wherein the drying step comprises heating the mixture, or vacuum drying the mixture.

19. A method according to claim 17 ~~or claim 18~~, wherein the mixture is held in a mould or press during the drying step.

20. A method according to claim 17 ~~or claim 18~~, wherein the mixture is coated onto a surface of an article prior to the drying step.

21. A method according to <sup>claim 17</sup> ~~any of claims 17 to 20~~, wherein the method is carried out in two steps, step 1 comprising coating the particles with a ceramic binder, and curing/drying the binder, and step 2 comprising coating the precoated particles with a ceramic binder, and curing/drying the binder.

22. A method according to claim <sup>27</sup> ~~21~~, ~~when dependent on claim 19~~, wherein step 2 is carried out with the mixture held in a mould or press.

23. A method according to <sup>claim 17</sup> ~~any of claims 17 to 22~~, wherein 50%-90% of the dry weight of the product is vermiculite

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having a particle size such that more than 60% of the vermiculite does not pass through a 1mm sieve.

24. A method according to <sup>claim 17</sup> ~~any of claims 17 to 23~~, wherein the vermiculite has a particle size such that more than 80% of the vermiculite does not pass through a 2mm sieve.

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